

REMARKS

Claims 1, 2, and 5 are now pending in the application. Claim 1 is amended, claims 3 and 4 are cancelled, and claim 5 is new. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The title and abstract stand objected to for certain informalities. Applicants have amended the title and abstract such that the title is more descriptive and the abstract sets forth the nature and gist of the invention. Favorable consideration of the title and abstract are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Padula (U.S. Pat. No. 5,365,791) in view of WO 93 22778. This rejection is respectfully traversed.

Claim 1 has been amended to recite a measuring device comprising a Hall sensor for displacement measurements, and a magnetic tube. The Hall sensor is disposed centrally and in an axially movable manner in the magnetic tube. A first half of the magnetic tube is cross-magnetized in a first direction such that the first half includes a first magnetic north pole that is diametrically opposed to a first magnetic south pole. A second

half of the magnetic tube is cross-magnetized in a second direction opposite the first direction such that the second half includes a second magnetic north pole that is diametrically opposed to a second magnetic south pole. Lastly, claim 1 now recites that the first magnetic north pole on the first half of the tube is diametrically opposed to the second magnetic north pole on the second half of the tube, and the first magnetic south pole on the first half of the tube is diametrically opposed to the second magnetic south pole on the second half of the tube.

This subject matter is described throughout the drawings and specification as originally filed. No new matter has been added. Specifically, this subject matter is described at Figures 2 and 4 where it can be seen that the tube has a first half 6 having a first north pole 3 diametrically opposed to a first south pole 4. The second half of the tube 7 includes a second north pole 3 diametrically opposed to the second south pole 4. Further, the first north pole 3 is diametrically opposed to the second north pole 3, and the first south pole 4 is diametrically opposed to the second south pole 4. The directions of magnetization are shown in Figure 4 by reference numbers 11 and 12, respectively.

Such a measurement device would not have been obvious in view of Padula and the '778 reference. That is, as admitted by the Examiner, Padula fails to teach a magnetic tube that is cross-magnetized with opposite polarity. Notwithstanding, the Examiner alleges that the '778 reference teaches this feature. Applicants respectfully assert, however, that the '778 reference fails to teach a first half of a tube having north and south poles, and a second half of a tube having north and south poles diametrically opposed to the north and south poles of the first half of the tube.

In contrast, in Figures 8, 11, and 12, the tube of the '778 reference includes north and south poles that travel along the entire length of the tube. This is different from the claimed invention because, as claimed, a first half of the tube has a north and south pole, and a second half of the tube has another north and south pole, wherein the north and south poles of the first half are diametrically opposed to the north and south poles of the second half of the tube. Because this feature of the claimed invention is neither taught nor suggested by the proposed combination of Padula and the '778 reference, Applicants respectfully assert that the claimed invention would not have been obvious.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

NEW CLAIM

New claim 5 has been added. The subject matter of claim 5 is described throughout the specification and drawings as originally filed. No new matter has been added. Favorable consideration of this new claim is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office

Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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